

Rec'd PCT/PTO 01 FEB 2005 #2

PCT/AU03/00970



**PRIORITY
DOCUMENT**

SUBMITTED OR TRANSMITTED IN
COMPLIANCE WITH RULE 17.1(a) OR (b)

REC'D 19 AUG 2003

WIPO

PCT

Patent Office
Canberra

I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2002951835 for a patent by OWEN KEITH HUTCHISON as filed on 04 October 2002.

I further certify that the above application is now proceeding in the name of INNOVATIVE MOTORCYCLE TECHNOLOGY PTY. LTD pursuant to the provisions of Section 113 of the Patents Act 1990.

WITNESS my hand this
Eleventh day of August 2003

J. Billingsley

JULIE BILLINGSLEY
TEAM LEADER EXAMINATION
SUPPORT AND SALES



BEST AVAILABLE COPY

**Australia
Patents Act 1990**

**Provisional Specification
Provisional Patent**

Hydraulic Master Cylinder with Positive Mechanical Return

The invention is described in the following statement:



-1-

Hydraulic Master Cylinder with Positive Mechanical Return**Description:**

This invention is intended to reduce the force involved in actuating a hydraulic master cylinder. It came about as a result of attempting to operate a hydraulic motorcycle brake or clutch lever using only one finger.

Hydraulic master cylinders are commonly in use in all manner of controls for equipment and vehicles. Many of these controls are not power assisted and therefore the total force they generate is limited to the force that the operator can exert, less any friction and spring action that the system has.

This invention is intended to reduce the spring action in a hydraulic master cylinder.

Commonly used hydraulic cylinders require a heavy return spring to facilitate the return of the piston to a position that opens the port to the reservoir. In this invention it is envisaged that no or a very light return spring will be used. The piston can then be returned to an open port to reservoir position when required, by pushing the lever back. This is made possible by the use of small bearings and linkages instead of the pins and sockets in common use.

To further improve the understanding of this invention, please refer to figure (1).

Figure (1) shows an example of the invention that is suitable for use on a handlebar mounted control such as in use in motorcycles. The example shown is typical of what is commonly in use with two exceptions:

1. The use of bearings on all pivots of the linkages allowing the master cylinder (3) piston to be positively actuated by the operator in both directions.
2. A slack adjuster (4) that allows the adjustability of free play but still permits the master cylinder (3) piston to be pulled back to an open port to reservoir position.

Pulling the lever (1) in towards the handlebar i.e. in direction (A), first takes up the slack set by adjuster (4), then pushes the piston from left to right. This pressurises the system and operates the slave cylinder (5). If the lever is released the system pressure will return the master cylinder (3) piston back, but it will not push it back far enough to open the return port to reservoir (2). This means that although the lever will now operate the system, pumping losses and changes in temperature will effect its operation. However by simply pushing the lever in direction (B) i.e. away from the handlebar, this resets the system by pulling back the master cylinder (3) piston to a point at which the return to reservoir port is open. This compensates for pumping losses and /or expansion or contraction of the fluid due to temperature changes.

OWEN HUTCHISON

4TH OCTOBER 2002

Abstract

Hydraulic master cylinder with positive mechanical return. A system whereby the piston in a hydraulic master cylinder is returned to an open port to the reservoir position by the operator instead of by a return spring. This reduces the effort required to operate the master cylinder.

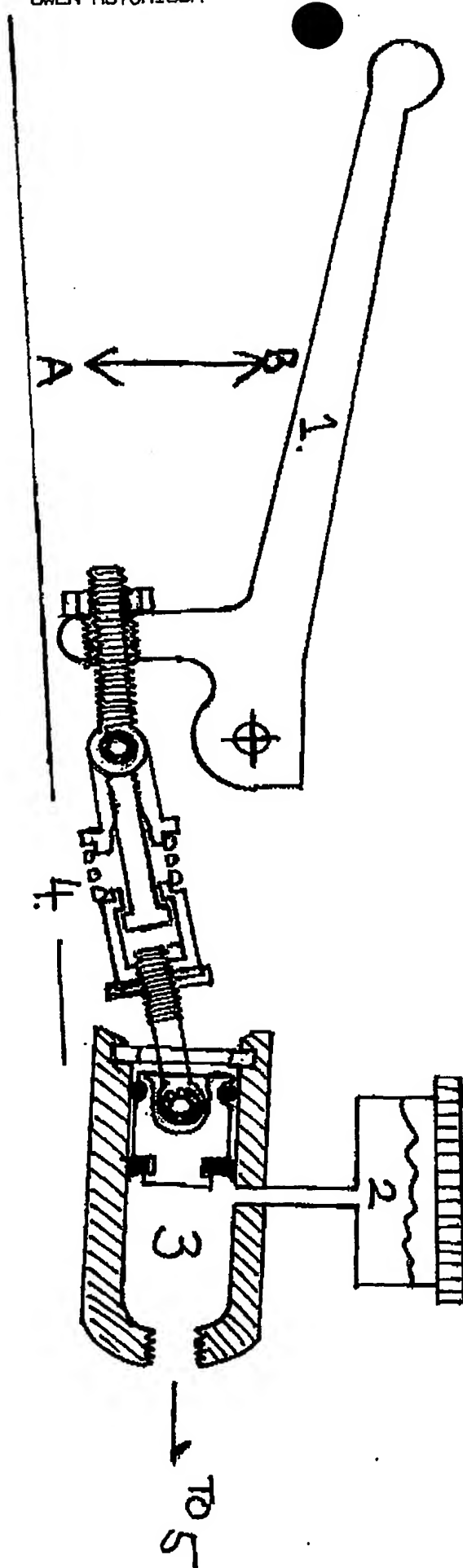
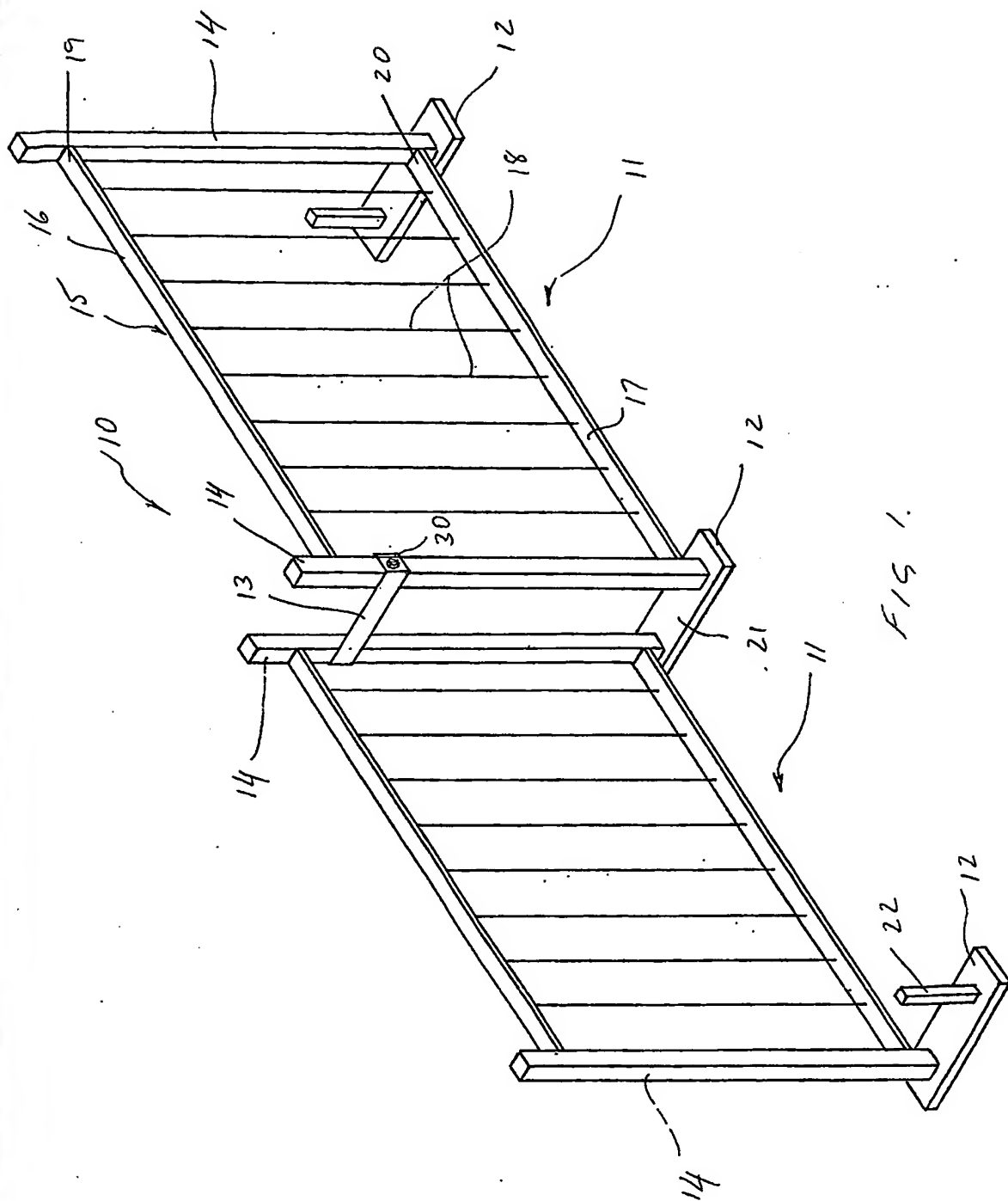


FIGURE 1

ABSTRACT

This invention relates to a temporary barrier 10 that is suitable for use in conjunction with a swimming pool which itself may be under construction. The temporary barrier 10
5 includes at least two panels 11 arranged end to end so as to form a barrier, each of said panels 11 including a pair of opposing post members 14 that provide support for a wall 15 located there between. The wall 15 is adapted to provide an obstruction that in use will prevent or inhibit children from
10 climbing over said obstruction. The barrier 10 also includes a plurality of base members 12, each being adapted to engage a respective lower portion of two adjacent post members 14 in a manner that will support said post members in a generally upstanding attitude. The adjacent panels 11 are further
15 maintained in an operative attitude by at least one connector 13 that connects a respective upper portion of two adjacent post members together.



THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A temporary barrier that is suitable for use in conjunction with a swimming pool which itself may be under construction, said temporary barrier including:

5 at least two panels arranged end to end so as to form a barrier, each of said panels including a pair of opposing post members that provide support for a wall located there between, said wall being adapted to provide an obstruction that in use will prevent or inhibit children from climbing over said
10 obstruction;

a plurality of base members each being adapted to engage a respective lower portion of two adjacent post members in a manner that will support said post members in a generally upstanding attitude;

15 at least one connector for connecting a respective upper portion of two adjacent post members together.

2. A temporary barrier as claimed in claim 1, wherein said wall is rigid and includes a pair of horizontally orientated rails and a plurality of vertically orientated bars and
20 wherein each of the bars has an upper and a lower end portion that is attached to a respective one of said rails.

3. A panel for use in the construction of a temporary

barrier that is suitable for use in conjunction with a swimming pool which itself may be under construction, said panel:

5 a pair of opposing post members each having a lower end
portion that is adapted to engage a base member that is
adapted to maintain said post member in an upstanding
position, said opposing post members supporting a wall located
there between, said wall being adapted to provide an
obstruction that in use will prevent or inhibit children from
10 climbing over said obstruction.

4. A temporary barrier substantially as herein before
described with reference to the drawings.

5. A panel for use in the construction of a temporary
barrier substantially as herein before described with
15 reference to the drawings.

Dated this 19th Day of December, 2002

BRETT THOMAS and OWEN THOMAS

By their Patent Attorneys

AHEARN FOX

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☒ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☒ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☒ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.